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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/392,468	09/09/1999	MARC A. SMITH	1026-019/MMM	1203

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EXAMINER

ROMERO, ALMARI DEL CARMEN

ART UNIT PAPER NUMBER

2176

DATE MAILED: 07/29/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

3

Office Action Summary

Application No.

09/392,468

Applicant(s)

SMITH ET AL.

Examiner

Almari Romero

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Amendment and formal drawing filed on 5/13/03.
2. The objection to the IDS has been withdrawn based on Applicant's remarks on page 8 of the filed Amendment. Examiner has considered the reference "Visual Insights Advisor" based on the printed date 5/03/99, which is prior to the originally filed application.
3. The objection to the drawings with regard to Figure 2 has been withdrawn as necessitated by amendment.
4. Claims 1-42 are pending in the case. Claims 1 and 23 are independent claims.

Information Disclosure Statement

5. The references cited in the information disclosure statement (IDS) submitted on 9/9/99 have been considered by the Examiner.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2176

7. **Claims 1-3, 7-12, 14-26, 30-35, and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lokuge (USPN 6,252,597 B1 - filed on 2/1997) in view of Rao et al. (USPN 6,085,202 - filed on 3/1998).**

Regarding independent claim 1, Lokuge discloses:

In an threaded information visualization system that provides a visualization of threaded information that includes plural threaded information entries, a graphical representation of the threaded information rendered on a display screen (on col. 2, line 6 – col. 3, line 14: teaches plurality of entries in a tree structure), comprising:

an indented threading arrangement of parallel (on col. 6, lines 8-15 and col. 11, lines 5-43: teaches indentation of categories (entries) in a hierarchical arrangement; categories can be arranged in parallel structure (see figures 15 and 16)).

However, Lokuge does not explicitly disclose, “generally one dimensional entry lines that each represent one of the threaded information entries”.

Rao et al. (Rao) on col. 16, lines 33-37 and col. 17, lines 46-54, see figures 14 and 15: teaches one-dimensional array or row (entry lines).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide one-dimensional rows in a hierarchical arrangement on a graphical display in order to effectively view selected regions of interest in a graphical data representation environment.

Regarding dependent claims 2 and 25, Rao discloses:

in which the threaded information entries include plural fields of entry information and in which the entry lines are rendered with variations corresponding to information in one or more of

Art Unit: 2176

the predefined fields of entry information (on col. 12, line 50 – col. 13, line 5: teaches mapping entries with cell regions).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a way to map (associate) entries with a plurality of cell regions (fields) in order to enhance the display of images directly representing an item of data in the data structure.

Regarding dependent claims 3 and 26, Lokuge discloses:

in which individual entry lines are rendered with colors corresponding to information in one or more of the predefined fields of the entry information for the individual threaded information entries (Lokuge on col. 7, lines 35-48: teaches colors corresponding to categories).

Regarding dependent claims 7, 9, 30, and 32, Lokuge discloses:

in which the entry lines are rendered with lengths corresponding to information in one or more of the predefined fields of entry information (on col. 8, lines 26-34: teaches text or symbols showing in the expansive locations may be resized).

Regarding dependent claims 8, 11, 12, 31, and 34, Lokuge discloses:

in which the entry lines are rendered at positions corresponding to information in one or more of the predefined fields of entry information (on col. 11, lines 5-43: teaches providing a range of indentation to position displayed information objects).

Regarding dependent claims 10 and 33, Lokuge discloses:

in which each information entry includes an amount of information and in which the one or more predefined fields of entry information relates to the amount of information in the

Art Unit: 2176

information entry (on col. 6, lines 33-52: teaches resizing defined region to permit user to view all the information in that region).

Regarding dependent claims 14, 21, 39, and 41, Lokuge discloses:

in which the threaded information includes threads that begin with top-level information entries, the graphical representation further comprising text information only about top-level information entries (Lokuge on col. 6, lines 8-15: teaches top tier categories (entries)).

Regarding dependent claims 15 and 37, Lokuge discloses:

in which the entry lines are horizontal (on col. 6, lines 8-15: teaches horizontal dimensions (entry lines)).

Regarding dependent claims 16 and 38, Lokuge discloses:

in which the entry lines are arranged vertically (on col. 6, lines 8-15: teaches vertical dimensions).

Regarding dependent claim 17, Lokuge discloses:

in which the threaded information includes threads that begin with top-level information entries and in which the entry indicators representing the top-level information entries include spacing between them (on col. 5, lines 53-57: teaches create space within a list of information).

Regarding dependent claims 18 and 19, Rao discloses:

in which plural ones of the entry indicators are positioned together to represent a thread of threaded information and in which the entry indicators representing the thread include no spacing between them transverse to their one dimension (on col. 21, lines 1-24 and col. 26, lines 8-36, see figures 14 and 15: teaches zero spacing (no spacing) for entries as the amount of space).

Art Unit: 2176

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide zero spacing of each entry for user to select a focal region of cells to effectively view selected regions of interest.

Regarding dependent claims 20 and 40, Rao discloses:

in which the entry lines associated with the information entries of a user-selected thread are replaced with enlarged entry bars (on col. 14, lines 47-67: teaches replacing character information with graphical display object as different types of bars 30, 32, 36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a way to replace character information (entries) with graphical display objects as different types of bars in order to enhance the display of each character information within a cell.

Regarding dependent claims 22 and 42, Rao discloses:

in which user-selected enlarged entry bars are distinguished from other enlarged entry bars (on col. 14, lines 47-67: teaches different types of bars 30, 32, 36).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a way to replace character information (entries) with graphical display objects as different types of bars in order to enhance the display of each character information within a cell.

Regarding independent claim 23, Lokuge discloses:

In an threaded information visualization software that is on a computer readable medium and provides a visualization of threaded information that includes plural threaded information entries

Art Unit: 2176

(on col. 2, line 6 – col. 3, line 14: teaches plurality of entries in a tree structure), the improvement comprising:

a rendering engine for rendering a threaded information visualization as indented threading arrangement (on col. 6, lines 8-15 and col. 11, lines 5-43: teaches indentation of categories (entries) in a hierarchical arrangement).

However, Lokuge does not explicitly disclose, “generally one dimensional entry lines that each represent one of the threaded information entries”.

Rao on col. 16, lines 33-37 and col. 17, lines 46-54, see figures 14 and 15: teaches one-dimensional array or row (entry lines).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide one-dimensional rows in a hierarchical arrangement on a graphical display in order to effectively view selected regions of interest in a graphical data representation environment.

Regarding dependent claim 24, Lokuge discloses:

further comprising user interface controls for allowing user to select form among plural visualization formats (Lokuge on col. 3, lines 40-67: teaches formats) that each include an indented threading arrangement of parallel (Lokuge on col. 6, lines 8-15 and col. 11, lines 5-43: teaches indentation of categories (entries) in a hierarchical arrangement; categories can be arranged in parallel structure (see figures 15 and 16)), generally one-dimensional entry lines (Rao on col. 16, lines 33-37 and col. 17, lines 46-54, see figures 14 and 15: teaches one-dimensional array or row (entry lines)).

Art Unit: 2176

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide one-dimensional rows in a hierarchical arrangement on a graphical display in order to effectively view selected regions of interest in a graphical data representation environment.

Regarding dependent claim 35, Rao discloses:

in which the entry lines are rendered at lateral positions corresponding to information in one or more of the predefined fields of entry information (on col. 10, lines 35-37: teaches data array is a combination of data items mapped into an array).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a way to map data items into a data array in order to enhance the display of images directly representing an item of data in the data structure.

8. **Claims 4-6, 13, 27-29, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lokuge-Rao as applied to claims 1-3, 7-12, 14-26, 30-35, and 37-42 above, and further in view of Durham et al. (USPN 5,832,502 – filed on 7/1996).**

Regarding dependent claims 4 and 27, Lokuge and Rao discloses the invention substantially as claimed as described *supra*. However, Lokuge and Rao do not explicitly disclose, “in which each information entry has an originator and in which the one or more predefined fields of entry information relate to the originator of the information entry and the originator is indicated in the entry line for the information entry”.

Art Unit: 2176

Durham et al. (Durham on col. 6, lines 13-34, see figure 3D: teaches displayed a number of child blocks (fields) with messages and users name (originator) of the messages.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a display of a number of child blocks (fields) occupied with messages and user names of the messages in order to indicate the depth of the conversation, resulting in the desired visual display.

Regarding dependent claims 5 and 28, Lokuge discloses:

in which plural information entries may share a common originator (Durham on col. 6, lines 13-34, see figure 3D: teaches displayed a number of child blocks (fields) with messages and which may be common users name (originator) of the messages) and in which the color of an entry line corresponds to the number of information entries provided by the originator of the entry line (Lokuge on col. 7, lines 35-48: teaches color corresponding to categories).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a display of a number of child blocks (fields) occupied with messages and user names of the messages in order to indicate the depth of the conversation, resulting in the desired visual display.

Regarding dependent claims 6, 13, 29, and 36, Durham discloses:

in which each information entry has an associated time and in which the one or more predefined fields of entry information relate to the associated time of the information entry and the associated time is indicated by positioning of the entry line for the information entry (Durham on col. 6, lines 13-34, see figure 3D: teaches items proportional to number of child blocks in the conversation index; displaying the time messages were created).

Art Unit: 2176

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Rao into Lokuge to provide a way to associate time of messages that were created with the number of child blocks (fields) in order to indicate the depth of the conversation, resulting in the desired visual display.

Response to Arguments

9. Applicant's arguments filed on 5/13/03 have been fully considered but they are not persuasive.

A) Regarding Applicant's remarks on page 10:

Lokuge in figures 12-16, see Abstract: teaches an information structure displayed as an interactive list of categories; wherein each category can be expanded or compressed.

Rao in figures 14-15, on col. 25, line 38 – col. 26, line 36: teaches a table image containing data displayed in rows and columns; wherein the data can be presented in a focal region 62. The table image 60 shows column 64 as a sorted column, sorted in descending order by "career average".

Lokuge and Rao displays data in a graphical user interface and wherein data can be displayed in a graphical list or table containing a list of data.

B) Regarding Applicant's remarks on page 11:

Rao does teach "threaded information entries", on col. 16, lines 33-37 and col. 17, lines 46-54: teaches rows of displayed data shown in an one dimensional array.

C) Regarding Applicant's remarks on page 11:

Art Unit: 2176

Referring to claims 3 and 26, Lokuge does teach “employing colors to differentiate individual entries in a threaded information visualization”, on col. 7, lines 35-48: teaches expansion location of categories are differentiated by color; lower-tier contents of a particular category are displayed having the same color as the expansion location of the related upper-tier category.

D) Regarding Applicant’s remarks on page 12:

Referring to claim 7, 9, 30, and 32, Lokuge does teach “render entry lines with lengths”, on col. 8, lines 26-34: teaches text can be proportionately resized to the dimensions of the expansion location, in other words, text can be shown in an expanded length.

E) Regarding Applicant’s remarks on page 13:

Referring to claims 14, 21, 39, and 41, Lokuge does teach “providing a threaded information visualization with text information only about top-level information entries”, on col. 6, lines 8-15, see figure 12: teaches categories can be organized in top-tier and can be displayed only as top-tier categories when not expanded; when each category is expanded the subcategories are displayed.

F) Regarding Applicant’s remarks on page 14:

Rao does teach “one dimensional entry lines”, on col. 16, lines 33-37 and col. 17, lines 46-54, see figures 14 and 15: teaches rows of data are displayed in one-dimensional arrays.

Art Unit: 2176

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

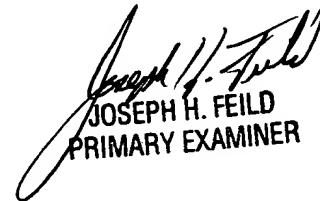
Art Unit: 2176

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Almari Romero whose telephone number is (703) 305-5945. The examiner can normally be reached on Mondays - Fridays (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (703) 305-9792. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

AR
July 27, 2003


JOSEPH H. FEILD
PRIMARY EXAMINER